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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,881	11/27/2002	Christopher Kapusta	126715-1	5282
23413	7590	08/23/2005		
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002				
			EXAMINER DOAN, JENNIFER	
			ART UNIT 2874	PAPER NUMBER

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/065,881

Applicant(s)

KAPUSTA ET AL.

Examiner

Jennifer Doan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 28-30 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17, 26, 27 and 31-34 is/are allowed.
- 6) ☒ Claim(s) 18, 19, 24 and 25 is/are rejected.
- 7) ☒ Claim(s) 20-23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 November 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Applicants' communication filed on June 6, 2005 has been carefully studied by the Examiner. The arguments advanced therein, considered together with the amendment made to the claims, are persuasive. In view of further search, however, a relevant document is found; therefore, a new rejection is set forth below. This action is **not** made final.

#### ***Specification***

1. Applicants' cooperation is requested in correcting any errors of which applicants may become aware in the specification.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Tumminelli et al. (U.S. Patent 5,121,460).

With respect to claim 18, Tumminelli et al. (figures 1 and 2 and column 1, lines 13-26) disclose an optical coupling system for coupling optical energy between optical devices, the system comprising a first waveguide (38) having a thickness of  $c$  and a refractive index of  $n_w$ , and receptive of the N-mode radiation from a radiation source (22) along an axis; a second waveguide (30) having a segment thereof positioned within the first waveguide (38) and having a thickness of  $t$ , wherein  $t$  is less than  $c$  and a refractive index of  $n_c$  wherein  $n_c$  is greater than  $n_w$  (column 2, lines 54-57).

With respect to claim 19, Tumminelli et al. (column 1, lines 13-16) disclose an optical coupling system further comprising an optical beam redirection device receptive of the N-mode radiation from the radiation source for directing the N-mode radiation to the first waveguide where  $N$  is an integer.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

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were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tumminelli et al. (as cited above).

With respect to claim 24, Tumminelli et al. substantially disclose all the limitations of the claimed invention except for a segment of the first waveguide being truncated by a distance d.

However, the segment of the first waveguide being truncated by a distance d is considered to be obvious, since the efficiency of the optical coupling is dependent on the distance cut in the waveguide. Such an element would advantageously provide a highly efficient optical coupling and optical signal transmission. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the truncation of the waveguide of Tumminelli's device with the distance value as claimed to transmit the light beam for the purpose of obtaining the highly efficient transmission of optical signal, and it also has been held that discovering an optimum value of a result effective variable involves only routine skill in the art and it is noted that the applicant does not disclose criticality in the value claimed. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) (see MPEP § 2144.05).

With respect to claim 25, Tumminelli et al. substantially disclose all the limitations of the claimed invention except for the second waveguide being offset from the axis of the N-mode radiation by a distance  $r$ .

However, the second waveguide being offset from the axis of the N-mode radiation by a distance  $r$  is considered to be obvious, since the efficiency of the optical signal transmission is dependent on the position of the waveguide. Such an element would advantageously provide a highly efficient optical coupling and optical signal transmission. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the position of the waveguide of Tumminelli's device with the distance value as claimed to transmit the light beam for the purpose of obtaining the highly efficient transmission of optical signal, and it also has been held that discovering an optimum value of a result effective variable involves only routine skill in the art and it is noted that the applicant does not disclose criticality in the value claimed. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) (see MPEP § 2144.05).

#### ***Allowable Subject Matter***

7. Claims 20-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 1-17, 26, 27 and 31-34 are allowed.

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The prior art of record fails to disclose or reasonably suggest an optical coupling system for coupling optical energy between optical devices, the system comprising a waveguide including a first section receptive of the N-mode radiation from the optical beam redirection device and having a thickness of  $h$  and being asymmetric in shape as recited in claims 1, 31 and 33.

The reason for allowance of claims 5, 13 and 26 were addressed in the previous office action.

Claims 2-4, 6-12, 15; 14-17; 27; 32 and 34 depend from the allowable claims 1; 13; 26; 31 and 33 respectively. Therefore, claims 2-4, 6-12, 15, 14-17, 27, 32 and 34 are also allowed.

### ***Response to Arguments***

9. Applicants' arguments with respect to claims 1-17, 26, 27 and 31-34 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Doan whose telephone number is (571) 272-2346. The examiner can normally be reached on Monday to Thursday from 6:00am to 3:30pm, second Friday off.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jennifer Doan

Patent Examiner

August 17, 2005